



VT7200 Series 24 Vac Low Voltage Zoning Thermostats For Commercial HVAC Applications

Product overview

The VT7200 PI thermostat family is specifically designed for zoning applications. Typical applications include local hydronic reheat valve control and pressure dependent VAV with or without local reheat. The product features a backlit LCD display with dedicated function menu keys for simple operation. Accurate temperature control is achieved due to the product's PI proportional control algorithm, which virtually eliminates temperature offset associated with traditional, differential-based thermostats. Models are available for 3 point floating and analog 0 to 10 Vdc control. In addition remote room sensing is available. They all contain an SPST auxiliary switch that can be used to control lighting or auxiliary reheat. All devices are also available with Echelon or BACnet MS-TP network adapter.



The additional following documentation is available on www.viconics.com

- Information on the LON models (VT72xxX1000E), is available on document ITG-VT7200-LON-E01
- Information on the BACnet models (VT72xxX1000B), is available on document ITG-VT7200-BAC-E01
- For more application information including detailed wiring, specific configuration and sequences of operation, please refer to online document APP-VT7200-E01.

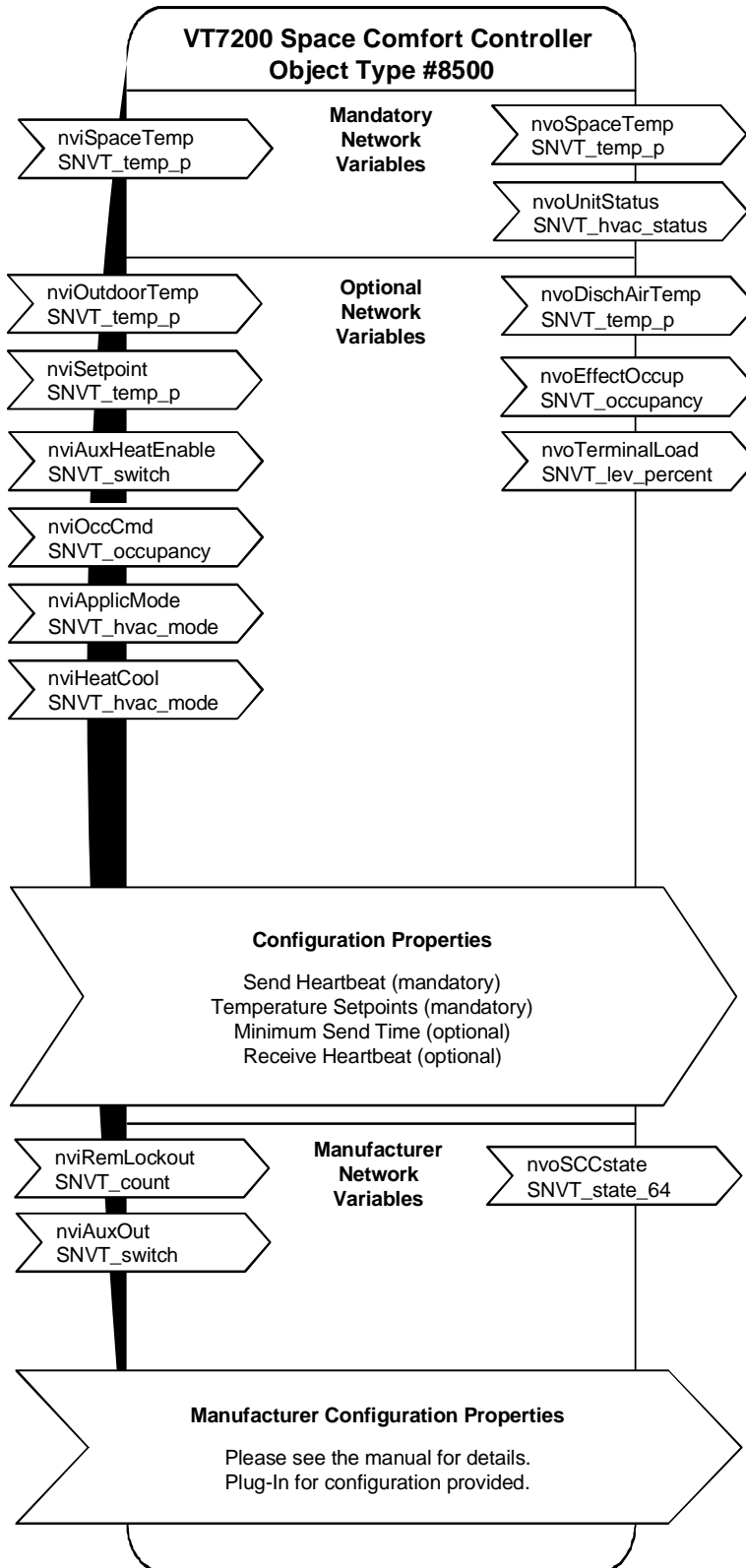
Models available

Viconics number	VT7200C1000 VT7200C1000B (BACnet) VT7200C1000E (Echelon)	VT7200F1000 VT7200F1000B (BACnet) VT7200F1000E (Echelon)
Control outputs	2 x Tri-state floating 1 x Auxiliary or reheat contact	2 x Analog 0 to 10 Vdc 1 x Auxiliary or reheat contact

Features and benefits

Features	Benefits
• Advanced occupancy functions	⇒ Through the network or smart local occupancy sensing
• 3 configurable inputs	⇒ Adds functionality
• Pre-configured sequences of operation	⇒ One model meet more applications ⇒ Reduces project delivery cost
• Unique configuration setup utility	⇒ Minimizes parameter tampering
• Lockable keypad	⇒ Tamper proof, no need for thermostat guards
• Available for 24 Vac On/Off, Floating or Analog control	⇒ Meet advanced applications requirements
• Auxiliary output	⇒ Can be used for lighting or reheat
• Available with various open industry standards communication adapters	⇒ Adds network integration functionality for additional savings

Thermostat Objects



SNVTs and SCPTs Table Per Model

Model Number			VT7200C1000E	VT7200F1000E
No	Sub	Point Name		
N/A: Not applicable on this model				
0		nviSpaceTemp	X	X
1		nviOutdoorTemp	X	X
2		nviSetpoint	X	X
3		nviSpaceRH	N/A	N/A
4		nviFanSpeedCmd	N/A	N/A
5		nviAuxHeatEnable	X	X
6		nviOccCmd	X	X
7		nviApplicMode	X	X
8		nviHeatCool	X	X
9		nviRemLockout	X	X
10		nviDhumiLCK	N/A	N/A
11		nviAuxOut	X	X
12		nvoSpaceTemp	X	X
13		nvoDischAirTemp	X	X
14		nvoSpaceRH	N/A	N/A
15		nvoEffectOccup	X	X
16		nvoUnitStatus	X	X
	1	mode	x	x
	2	heat_output_primary	x	x
	4	cool_output	x	x
	6	fan_output	N/A	N/A
	7	in_alarm	x	x
17		nvoSccStatus	X	X
	1	StateTerminal BO2	x	N/A
	2	StateTerminal BO1	x	N/A
	3	StateTerminal BO4	x	N/A
	4	StateTerminal BO3	x	N/A
	5	StateTerminal BO5	x	x

Model Number			VT7200C1000E	VT7200F1000E
No	Sub	Point Name		
N/A: Not applicable on this model				
	6	FanLow	N/A	N/A
	7	FanMed	N/A	N/A
	8	FanHigh	N/A	N/A
	9	UI 3 Status	x	x
	10	BI 2 Status	x	x
	11	BI1 Status	x	x
	12	Service Alarm	x	x
	13	Filter Alarm	x	x
	14	Window Opened	x	x
	15	Dehumidification Active	N/A	N/A
18		nvoTerminalLoad	X	X
19		nciSetPts	X	X
	1	occupied_cool	x	x
	3	unoccupied_cool	x	x
	4	occupied_heat	x	x
	6	unoccupied_heat	x	x
20		nciRHmodel	N/A	N/A
	1	RHdisplay	N/A	N/A
	2	RHsetpoint	N/A	N/A
	3	DehumHyst	N/A	N/A
	4	DehumCool	N/A	N/A
	5	RHcalib	N/A	N/A
21		nciGenOpt	X	X
	1	Control Type	x	N/A
	2	Drive Time	x	N/A
	3	Cycles Per Hour	x	N/A
	4	Reverse Acting Output	N/A	x
	5	BI1	x	x
	6	BI2	x	x
	7	UI3	x	x
	8	Menu Scroll	x	x

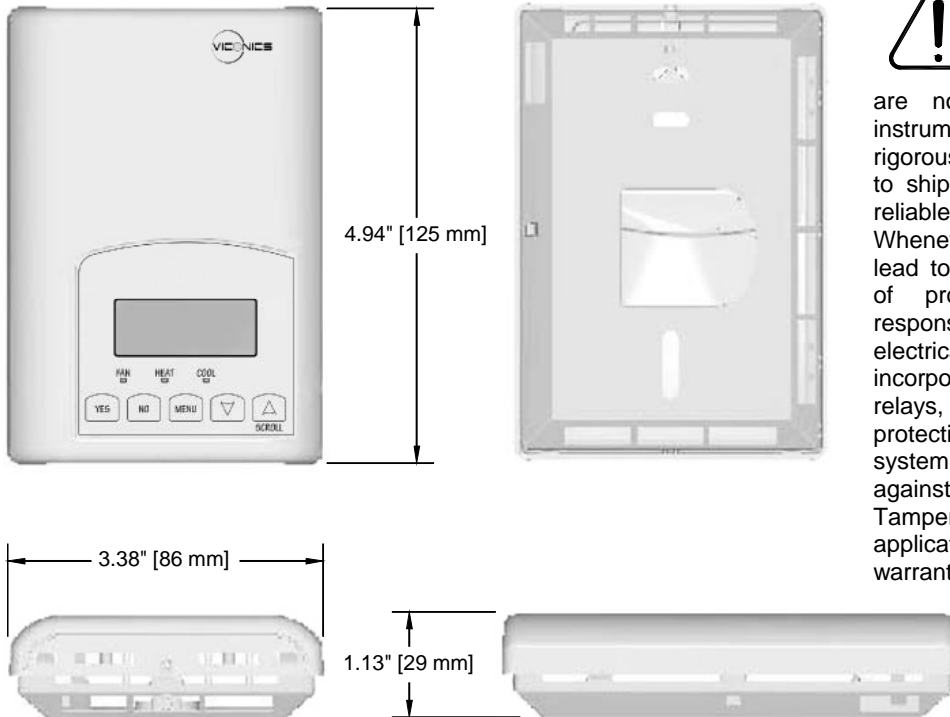
Model Number			VT7200C1000E	VT7200F1000E
No	Sub	Point Name		
N/A: Not applicable on this model				
	9	Auto Mode	x	x
	10	Temperature Scale	x	x
	11	Pipes # Main out config	x	x
	12	Fan Menu	N/A	N/A
	13	Heat Maximum setpoint	x	x
	14	Cool Minimum setpoint	x	x
	15	Setpoint Type	x	x
	16	Temporary Occ Time	x	x
	17	Door Time	x	x
	18	Deadband	x	x
	19	Calibration Room Sensor	x	x
	20	Auxiliary Contact Config	x	x
	21	Reheat Time Base	x	x
22		nciSccModel	X	X
	1	Thermostat Model	x	x
	2	Software Version	x	x
23		nciHvacType	X	X
24		nciSndHrtBt	X	X
25		nciMinOutTm	X	X
26		nciRcvHrtBt	X	X
27		nciMajVer	X	X
28		nciMinVer	X	X

Specifications

Thermostat power requirements: 19-30 Vac 50 or 60 Hz; 2 VA Class 2
 Operating conditions: 0 °C to 50 °C (32 °F to 122 °F)
 0% to 95% R.H. non-condensing
 Storage conditions: -30 °C to 50 °C (-22 °F to 122 °F)
 0% to 95% R.H. non-condensing
 Sensor: Local 10 K NTC thermistor
 Resolution: ± 0.1 °C (± 0.2 °F)
 Control accuracy: ± 0.5 °C (± 0.9 °F) @ 21 °C (70 °F) typical calibrated
 Occupied and unoccupied setpoint range
 cooling: 12.0 to 37.5 °C (54 to 100 °F)
 Occupied and unoccupied setpoint range
 heating: 4.5 °C to 32 °C (40 °F to 90 °F)
 Room and outdoor air temperature display
 range -40 °C to 50 °C (-40 °F to 122 °F)
 Proportional band for room temperature
 control: Cooling & Heating: 1.1°C (2.0°F)
 Binary inputs: Dry contact across terminal BI1, BI2 & UI3 to Scm
 Contact output rating: Triac output: 30 Vac, 1 Amp. Maximum, 3 Amp. in-rush
 Analog: 0 to 10 Vdc into 2KΩ resistance min.
 Wire gauge 18 gauge maximum, 22 gauge recommended
 Dimensions: 4.94" x 3.38" x 1.13"
 Approximate shipping weight: 0.75 lb (0.34 kg)
 Agency Approvals: FCC Class A & cULus.
 CE (Pending)

Drawing & dimensions

Important notice



All VT7200 series controls are for use as operating controls only and are not safety devices. These instruments have undergone rigorous tests and verifications prior to shipment to ensure proper and reliable operation in the field. Whenever a control failure could lead to personal injury and/or loss of property, it becomes the responsibility of the user / installer / electrical system designer to incorporate safety devices (such as relays, flow switch, thermal protections, etc...) and/or alarm system to protect the entire system against such catastrophic failures. Tampering of the devices or miss application of the device will void warranty.

Fig.13 – Thermostat dimensions



VT7300 Series 24 Vac Low Voltage Fan Coil Thermostats For Commercial and Lodging HVAC Applications

Product overview

The VT7300 PI thermostat family is specifically designed for fan coil control. The product features a backlit LCD display with dedicated function menu buttons for simple operation. Accurate temperature control is achieved due to the product's PI proportional control algorithm, which virtually eliminates temperature offset associated with traditional, differential-based thermostats.

Models are available for On/Off, 3 point floating and analog 0 to 10 Vdc control.

All models contain can control three, two or single fan speed. 3 additional inputs are also provided for various functions.

All models feature configurable System and Fan button functions to meet all possible applications. They all contain an SPST auxiliary switch that can be used to control lighting or auxiliary reheat.



The additional following documentation is available on www.viconics.com

- Information on the LON models (VT73xxX1000E), is available on document ITG-VT7300-LON-E01
- Information on the BACnet models (VT73xxX1000B), is available on document ITG-VT7300-BAC-E01
- For more application information including detailed wiring, specific configuration and sequences of operation, please refer to online document APP-VT7300-E01.

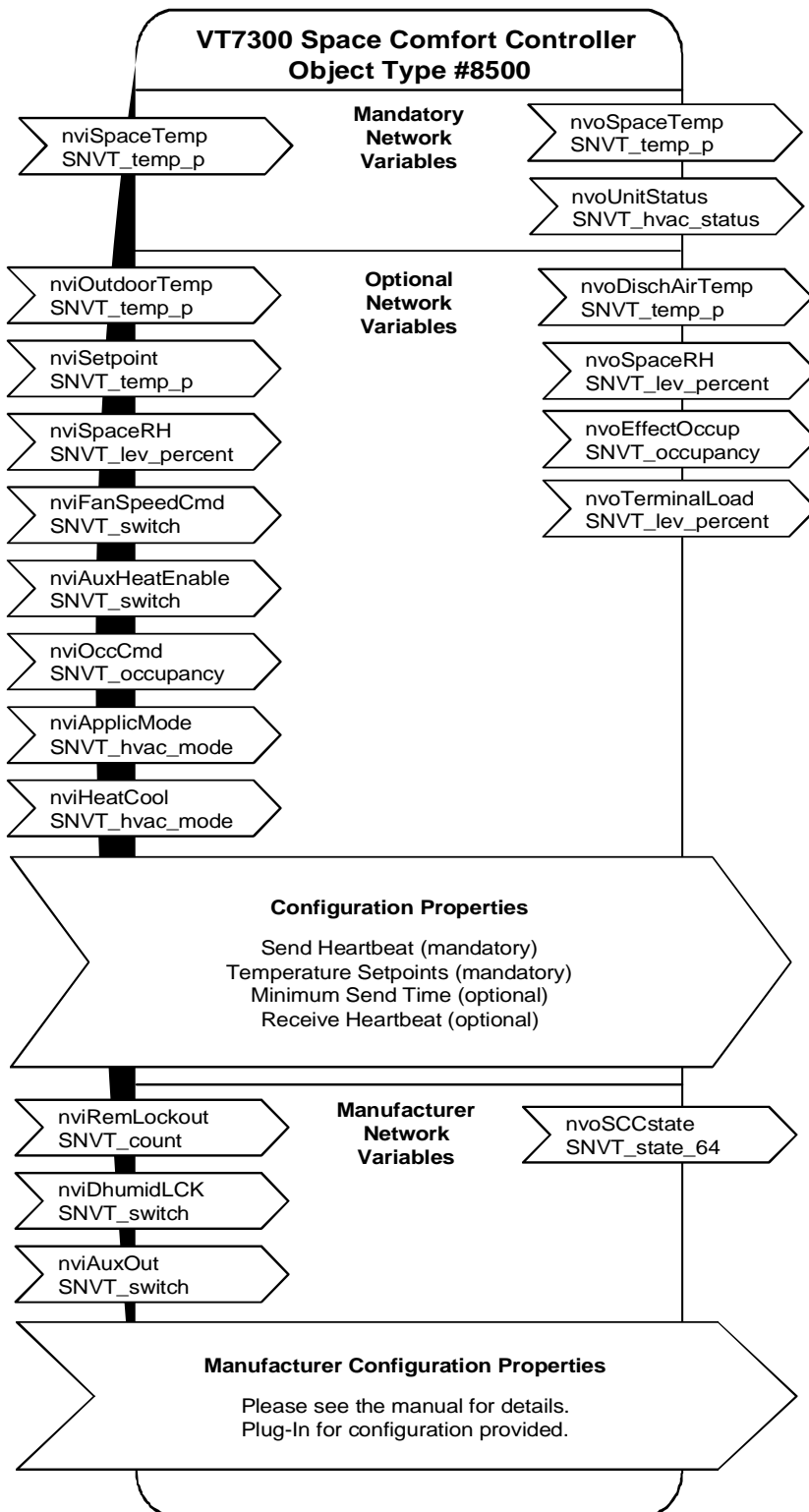
Models available

Viconics number	VT7300A1000	VT7300C1000	VT7350C1000	VT7305A1000	VT7305C1000	VT7355C1000	VT7300F1000	VT7350F1000	VT7305F1000	VT7355F1000
Application	2 & 4 Pipe On/Off	2 & 4 Pipe Floating & On/Off		2 & 4 Pipe On/Off	2 & 4 Pipe Floating & On/Off		2 & 4 Pipe Analog 0-10 Vdc			
RH sensor	No	No	Yes	No	No	Yes	No	Yes	No	Yes
Market	Commercial / Institution			Hotels / Lodging			Commercial / Institution		Hotels / Lodging	

Features and benefits

Features	Benefits
Models available with internal humidity sensing	Increased occupant comfort through dehumidification
Advanced occupancy functions	Through the network or smart local occupancy sensing
3 configurable inputs	Adds functionality
Configurable sequences of operation	Single model meets more applications
Configurable fan functions button	Meets more applications with a single model
Unique configuration setup utility	Minimizes parameter tampering
Multi level lockable keypad	Tamper proof, no need for thermostat guards
Auto Fan speed mode	Increased occupant comfort in cooling mode by reducing humidity and offer less fan noise in all mode of operation
Available for 24 Vac On/Off, Floating or Analog control	Meet advanced applications requirements
Auxiliary output	Can be used for lighting or reheat

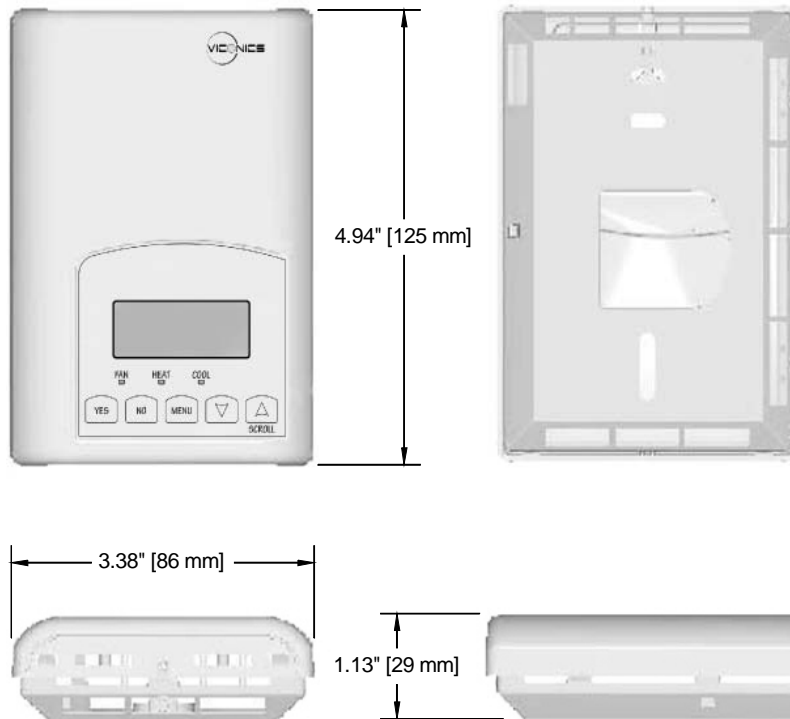
Thermostat Objects



Specifications

Thermostat power requirements:	19-30 Vac 50 or 60 Hz; 2 VA Class 2
Operating conditions:	0 °C to 50 °C (32 °F to 122 °F) 0% to 95% R.H. non-condensing
Storage conditions:	-30 °C to 50 °C (-22 °F to 122 °F) 0% to 95% R.H. non-condensing
Sensor:	Local 10 K NTC thermistor
Resolution:	± 0.1 °C (± 0.2 °F)
Control accuracy:	± 0.5 °C (± 0.9 °F) @ 21 °C (70 °F) typical calibrated
Occupied and unoccupied setpoint range cooling:	12.0 to 37.5 °C (54 to 100 °F)
Occupied and unoccupied setpoint range heating:	4.5 °C to 32 °C (40 °F to 90 °F)
Room and outdoor air temperature display range	-40 °C to 50 °C (-40 °F to 122 °F)
Proportional band for room temperature control:	Cooling & Heating: 1.1°C (2.0°F)
Binary inputs:	Dry contact across terminal BI1, BI2 & UI3 to Scom
Contact output rating:	Fan relay output: 30 Vac, 1 Amp. Maximum, 3 Amp. in-rush Valve triac output: 30 Vac, 1 Amp. Maximum, 3 Amp. in-rush Valve analog: 0 to 10 Vdc into 2KΩ resistance min.
Wire gauge	18 gauge maximum, 22 gauge recommended
Dimensions:	4.94" x 3.38" x 1.13"
Approximate shipping weight:	0.75 lb (0.34 kg)
Agency Approvals:	FCC Class A & cULus. CE (Pending)

Drawing & dimensions



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All VT7300 series controls are for use as operating controls only and are not safety devices. These instruments have undergone rigorous tests and verifications prior to shipment to ensure proper and reliable operation in the field. Whenever a control failure could lead to personal injury and/or loss of property, it becomes the responsibility of the user / installer / electrical system designer to incorporate safety devices (such as relays, flow switch, thermal protections, etc...) and/or alarm system to protect the entire system against such catastrophic failures. Tampering of the devices or miss application of the device will void warranty.

Fig.13 – Thermostat dimensions